



Nuin-Tara Key, *Resilience Program Manager*
California Governor's Office of Planning and Research

ABAG Workshop: Innovative Local and Regional
Approaches to Resilience Financing

May, 15 2017



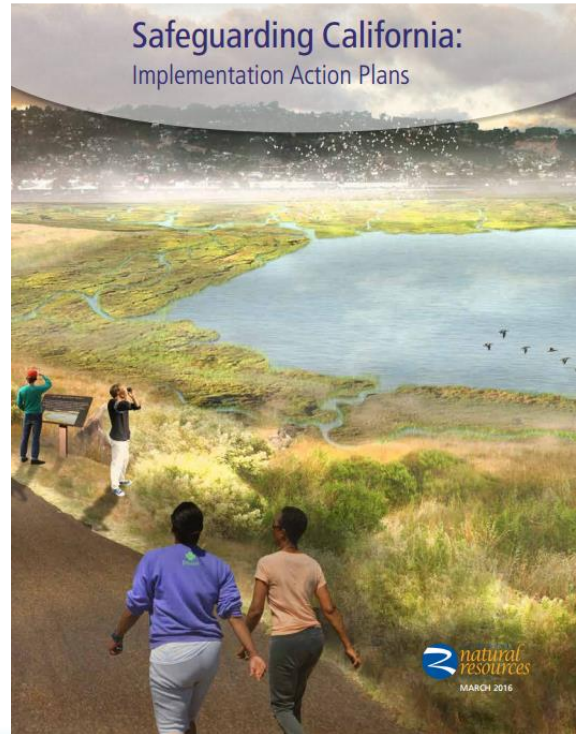
Reducing Emissions



First Update to the **Climate Change Scoping Plan**

BUILDING ON THE FRAMEWORK
PURSUANT TO AB 32
THE CALIFORNIA GLOBAL WARMING
SOLUTIONS ACT OF 2006

Preparing for Impacts



Research



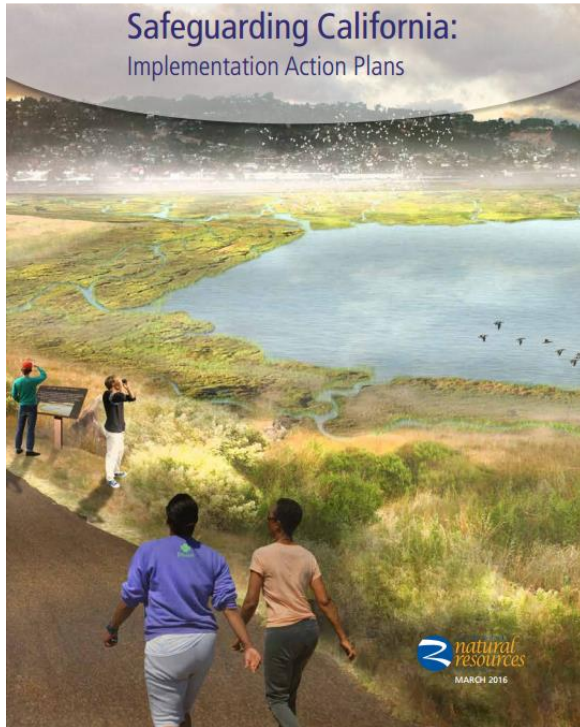
Climate Change Research Plan for California





1 | ADAPTATION FRAMEWORK

Preparing for Impacts





Adaptation Principles

Prioritize *natural and green infrastructure*

Protect the most *vulnerable*

Integrate mitigation and adaptation to the fullest extent possible

Coordinate with local and regional partners

Base decisions on *best available science*





Recent legislation

Legislation	Direction
SB 379	Requires climate change to be addressed in the Safety Element of General Plans
SB 246	Creates the Integrated Climate Adaptation and Resilience Program at OPR, which includes: <ul style="list-style-type: none">• Technical Advisory Council• Clearinghouse of information
AB 1482	<ul style="list-style-type: none">• Requires updating of Safeguarding every three years• Expands review authority of the Strategic Growth Council to include climate adaptation and non-member agencies
AB 2800	Establishes the Climate Smart Infrastructure Working Group



2 | Integrated Climate Adaptation and Resiliency Program (ICARP) | Senate Bill 246





Coordination and alignment

Integrated Climate Adaptation and Resiliency Program (ICARP)

Purpose

Coordinate state, local, and regional activities with a focus on **local implementation**

Cross-cutting objectives

Advance **equity and environmental justice**

Support an **integrated** approach to climate change (adaptation and mitigation)



Adaptation Clearinghouse

Science and Research

Cal-Adapt



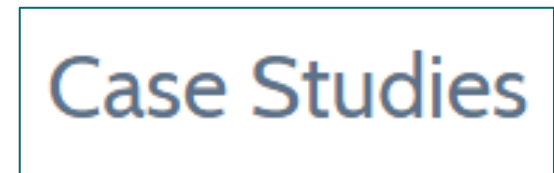
Policy guidance and decision support

Adaptation Planning Guide



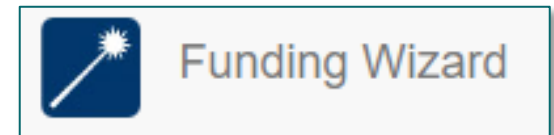
Case Studies (CA based)

On-the-ground lessons learned



Funding

Funding Wizard





Technical Advisory Council

Support coordination between state, tribal, local and regional jurisdictions

Current efforts

Adaptation & resiliency vision

Adaptation financing

Sea level rise



Christopher Michel [CC BY 2.0 (<http://creativecommons.org/licenses/by/2.0>)], via Wikimedia Commons



3 | ADAPTATION FINANCING



https://upload.wikimedia.org/wikipedia/commons/thumb/9/98/FEMA_-_33306_-_Helicopters_drop_fire_retardant_on_the_Harris_fire_in_California.jpg/1280px-FEMA_-_33306_-_Helicopters_drop_fire_retardant_on_the_Harris_fire_in_California.jpg



https://commons.wikimedia.org/wiki/File:Bluff_erosion_in_Pacifica_2.jpg



https://commons.wikimedia.org/wiki/File:California_Drought_Dry_Riverbed_2009.jpg



Overcoming Financial and Institutional Barriers to Implementing Local Government Adaptation Strategies

4th Assessment Survey Results

Local Government Commission

ICF International

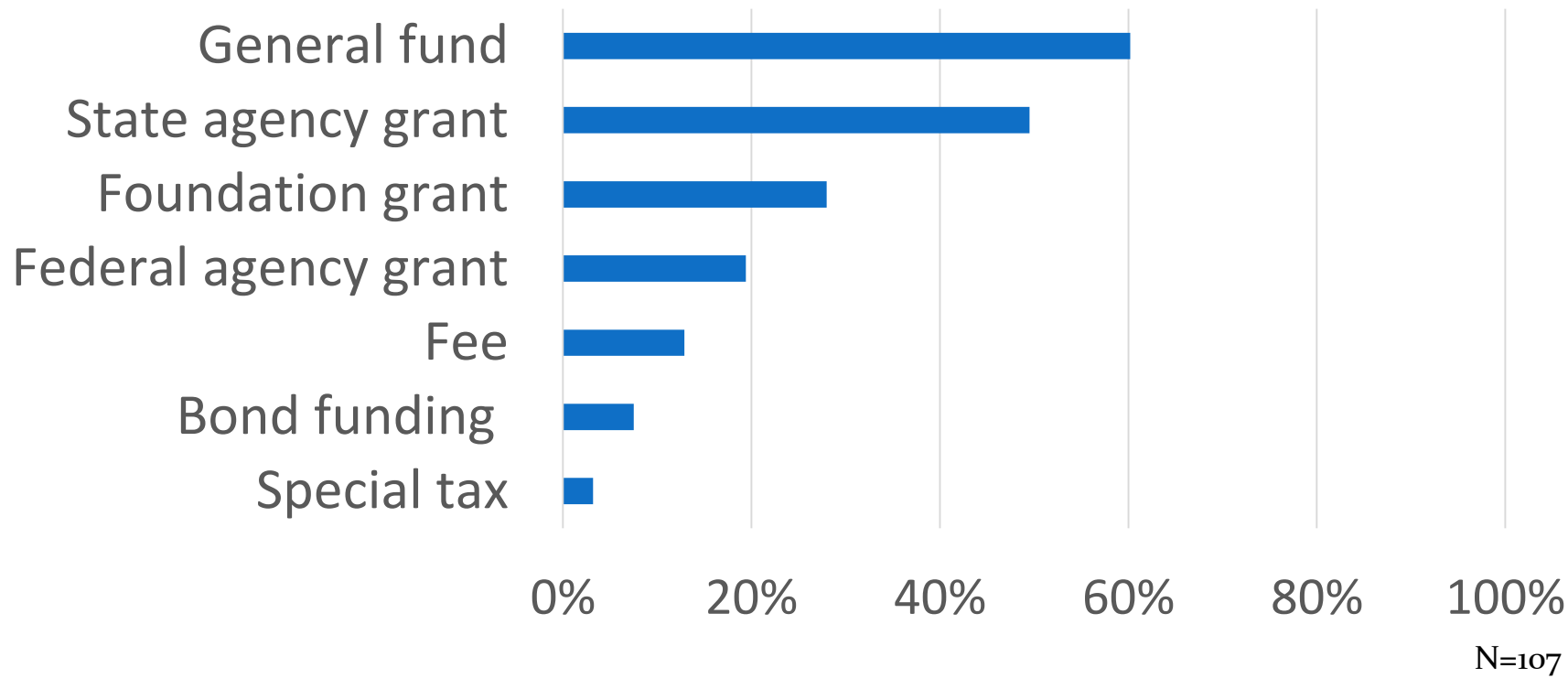
&

Susanne Moser Research & Consulting



Funding sources

Overcoming Financial and Institutional Barriers to Implementing Local Government Adaptation Strategies *4th Assessment Survey Results*





Funding challenges

Overcoming Financial and Institutional Barriers to Implementing Local Government Adaptation Strategies 4th Assessment Survey Results

We have some funding but it is insufficient to meet our needs

We don't have the staff time to write grant applications

We don't know how to cost out adaptation investments

We don't know where to go for adaptation funding

We don't have the required matching funds

We can't integrate adaptation into capital planning or in bonds

Our org. does not meet requirements to apply for certain funding

The funding we have restricts how we can use the funds

Other (please specify)

We don't have qualified staff to write successful grants

We don't have the capacity to administer external grants

There are institutional barriers to accepting external grants

Our constituency/membership drives our budget allocation

Our governing board/leadership isn't supportive of adaptation

Count 0 20 40 60

N=93



Summary | financing challenges

Overcoming Financial and Institutional Barriers to Implementing Local Government Adaptation Strategies *4th Assessment Survey Results*

Variability in Climate Projections

Limited Guidance on Integration of Adaptation

Limited Flexibility in Existing Funding Sources

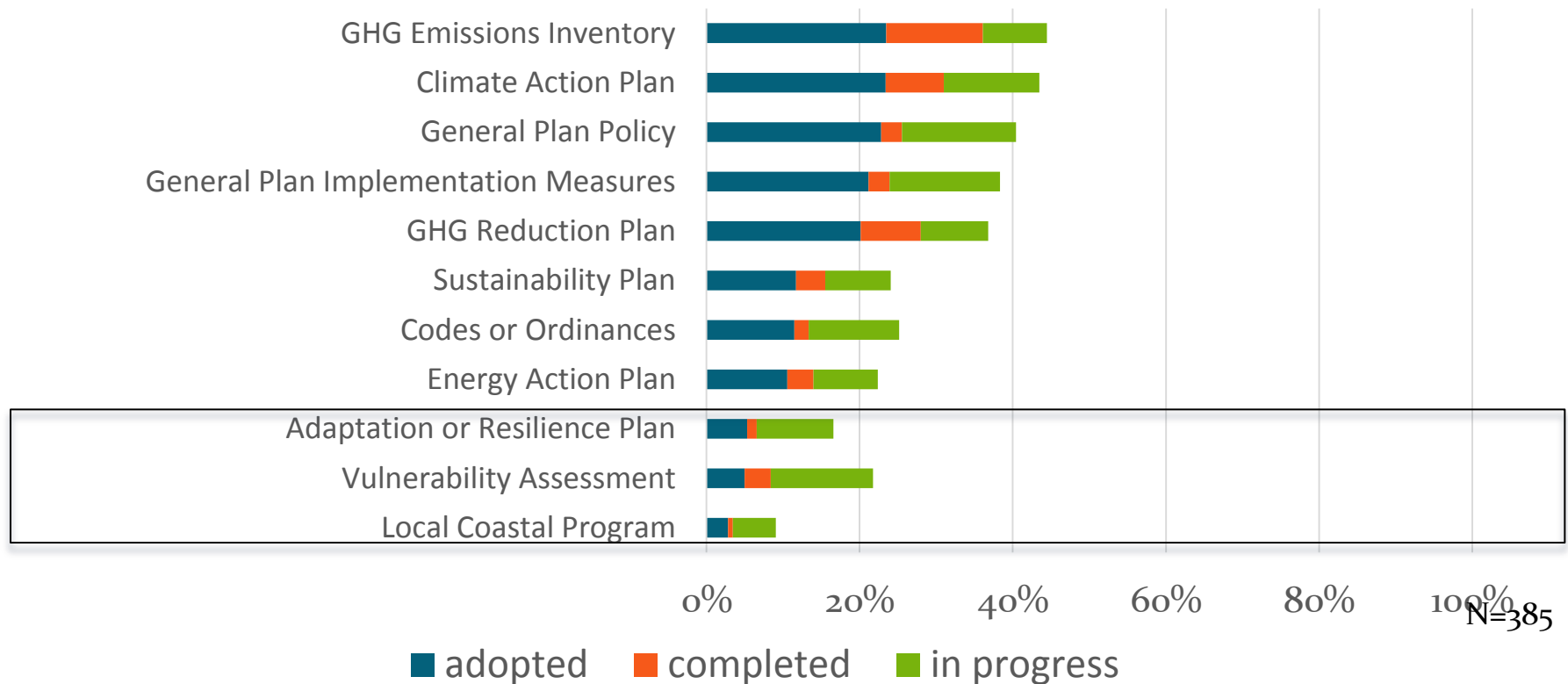
Limited Resources for Interjurisdictional Action

Limited Opportunities to Grow Funding

Absence of an Adaptation Financial Market

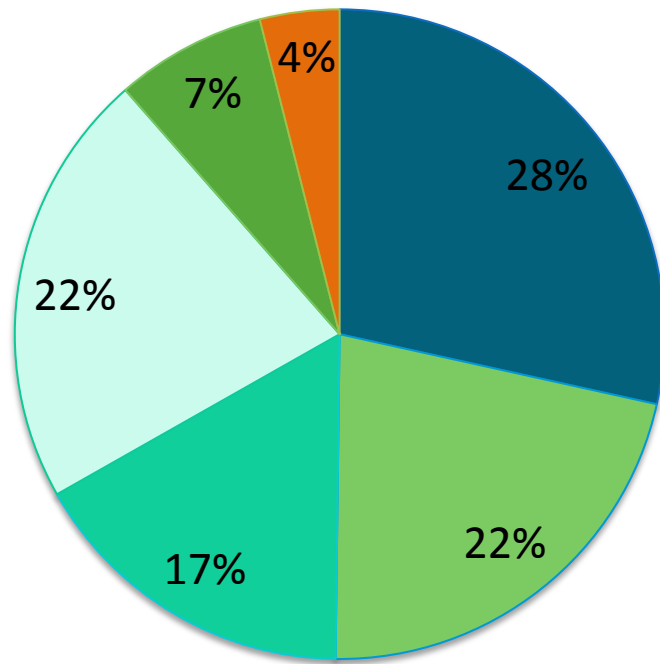


Adaptation Plans, Policies and/or Programs





Over the Past 2 Years...



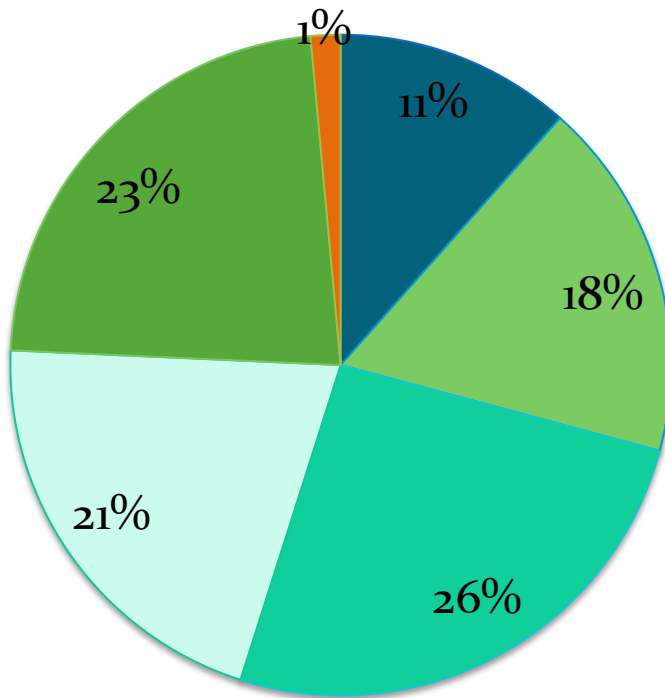
- Climate change risk or vulnerability assessment
- Adaptation/preparedness planning
- Implementation of adaptation actions
- Community engagement in adaptation planning or implementation
- Monitoring and evaluation of implemented adaptation actions
- Other (please specify)

N=97



Over the Next 5 Years...

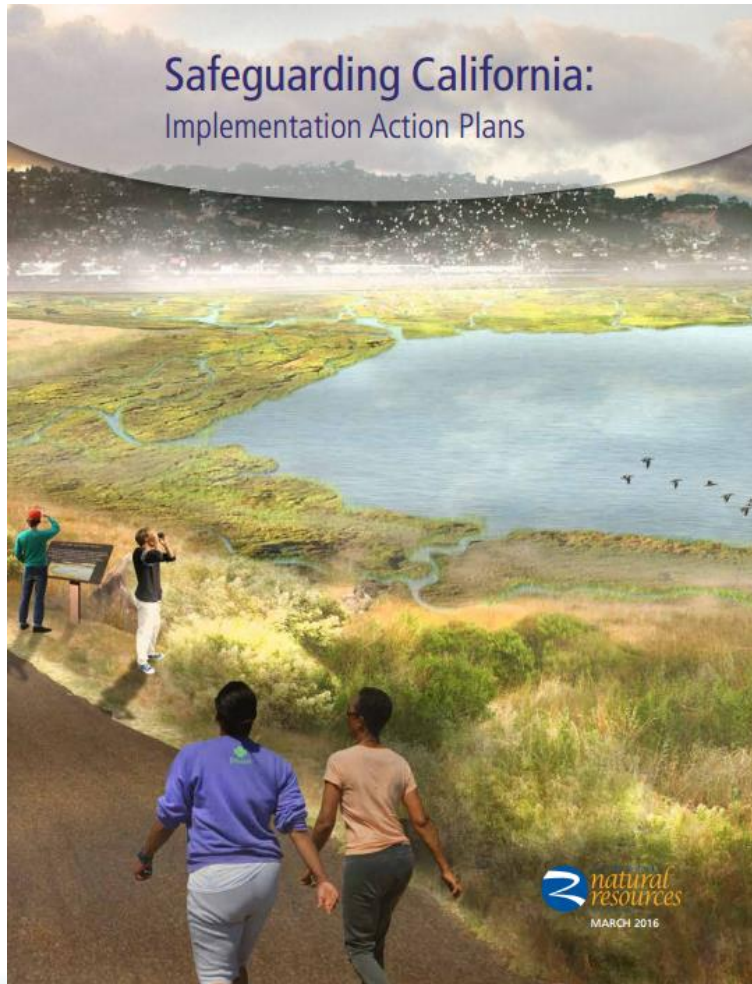
- Climate change risk or vulnerability assessment
- Adaptation/preparedness planning
- Implementation of adaptation actions
- Community engagement in adaptation planning or implementation
- Monitoring and evaluation of implemented adaptation actions
- Other (please specify)



N=99



STRATEGY *Safeguarding California*



10 sectors

For each sector:

- Overview of climate risks
- Actions to address those risks

Executive Order B-30-15:
Implementation Action Plans

2017 update is underway

Lead: California Natural Resources
Agency





Safeguarding California



Social Systems and the Built Environment

- Emergency Management
- Energy
- Land Use and Community Development
- Public Health
- Transportation

Natural and Managed Resource Systems

- Agriculture
- Biodiversity and Habitat
- Forests
- Oceans and Coasts
- Water



CA Extremes and Contrasts

